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STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

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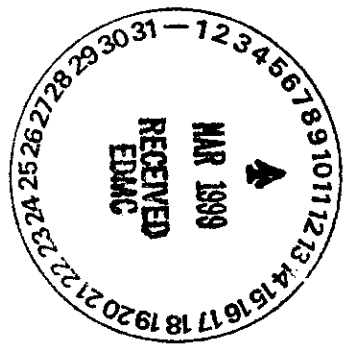
February 19, 1999



Mr. Dana C. Bryson
Storage Division Director -- TWRS
U.S. Department of Energy
Richland Operations Office
P.O. Box 550, MSIN: S7-54
Richland, Washington, 99352-0550

Dear Mr. Bryson:

Re: Concerns with the Impending Cross-Site Transfer of Waste from Tank SY-102 to Tank AP-107

The Washington State Department of Ecology (Ecology) recognizes the importance of transferring waste from tank SY-102 in the 200 West Area to tank AP-107 in the 200 East Area. In order to continue pumping waste out of the non-compliant Single-Shell Tanks (SSTs) it is critical that waste be removed from tank SY-102. Considering that tank waste from failed SSTs has reached the groundwater, pumping the liquids out of the SSTs to protect the environment is one of our highest priorities. The success of the impending cross-site transfer is essential to our mutual goal of interim stabilizing of the SSTs. However, Ecology has identified concerns and/or questions that need to be evaluated to support this and future transfers. We request that you review our concerns to ensure critical issues have been adequately addressed. Ecology's concerns and questions are provided as an attachment to this letter.

The information needed for Ecology to properly evaluate the adequacy of the United States Department of Energy (USDOE) and its contractors' preparation for this transfer, has not been made available with sufficient time to accomplish this task. For example, the Waste Compatibility Assessment for this effort was provided to us today. Ecology has expressed several times in the past (SX-104 Compliance Inspection, Cross-Site Compliance Inspection, and the Waste Compatibility Data Quality Objective), the importance of ensuring that waste can be transferred without causing the system to fail or plug. If this transfer is not successful, it would jeopardize the ability to get the liquids out of the SSTs and possibly impact the ability to transfer waste from tank SY-101, if that is required.

Department of Ecology

February 19, 1999

Re: Partial Review of Status of the SY-102 to AP-107 Cross-Site Transfer scheduled for February 25, 1999

Information was gathered from the following sources:

1. Tank Waste remediation System, Transfer Facility Compliance Plan (TFCP), WHC-SD-WM-EV-094, 1994.

2. Conceptual Design Report (CDR), Tank Farm Restoration and Safe Operations, Project W-314, Fluor Daniel Northwest for Numatec Hanford Corporation, W314CDR2, November 1996.

3. Tank Farm Restoration and Safe Operations (TFRSO), Project W-314, Upgrade Scope Summary Report, HNF-SD-W314-RPT-003, July 23, 1998.

4. Tank Waste Remediation System, Tank System Integrity Assessments Program Plan, WHC-SD-WM-AP-017, June 1994.

The following is a partial summary of information and questions related to individual vaults, pits, and pipelines in the 200 East area - following the path of the pending cross-site transfer, beginning with the 244-A diversion box (the east termination of the new cross-site transfer line). This summary will be updated as additional information is made available.

244-A Diversion Box:

(a detailed diagram is needed)

The 244-A structure is divided into several basic units. The lower portion contains the DCRT and provides secondary containment for the DCRT. For this transfer, the upper portion will be used as a diversion box in which a new jumper will be installed to route the waste from the incoming cross-site transfer line to the outgoing line (SN-216). The overriding question for the 244-A structure is: Has it received an adequate integrity assessment?

4. Were the leak detection I&C upgrades (outlined below) completed as stated on page H-22 1996 CDR-USQ? The purpose was stated as incorporating modern measurement equipment to replace antiquated, time-worn equipment "now in service" including:
   a) replace CAM with a better CAM (continuous air monitor).
   b) replace annulus conductivity leak detector with a resistive conductivity liquid presence detector.
   c) install new resistive/conductivity leak detectors in transfer line encasement pipes.
   d) install a new resistive/conductivity liquid leak detector in each dry pit. Does this include DCRTs and Valve pits?
5. Page 5 of the 1996 CDR states the following for the 244-A DCRT: "Upgrade the complete ventilation system." Did this occur? What is the current status?

Page 5 of the 1994 Tank System Integrity Assessments Program Plan mentioned that the 244-A DCRT was to be isolated and that the Seal Pot(s) were to be replaced with compliant ones. What is the current status of the seal pots?

SN-216 Transfer Pipe 3" dia length = 1,556

This is a three inch diameter, double contained pipeline (pipe in pipe) located between 244-A and 241 A-B Valve Pit. It parallels the SN-215 pipeline until near the point of termination. It is made of schedule 40 M-26A, ASTM A-53, (ASTM A-106?), type S, grade B seamless carbon steel.

1. The corrective action/comments column on Page A-10 of the 1994 TFCP Appendix states that SN-216 should be isolated. One footnote in the same Appendix states that this line does not have adequate secondary containment. Another footnote states that leak detection is provided using a pressure switch in the secondary containment. How exactly does this leak detection system work?
2. Page H-10 of the 1996 CDR (USQ) states that SN-216 is one of three transfer lines that will be replaced.

If this line was scheduled to be replaced or isolated, explain how it is compliant with regulations and why it is currently safe to use.

241-A-B Valve Pit

Drains to the A-330 catch tank. What is the current status of A-330?

1. All scope for work previously identified in project W-314 for the 241-A-B Valve Pit has been deleted in the revised W-314.
2. Page H-10 of the 1996 W-314 CDR states that epoxy coating will be applied to this pit. What is the current status of the pit wall liner?

241-AW-A Valve Pit (continued)

Following = From the revised W-314
1. New cover blocks
2. (No scope was deleted in the revised W-314) – Status?

SN-267 Transfer Line 3" dia length = 119'

1. Leak detection = conductivity probe located in encasement.

241-AW-02A Pump Pit

Drains to AW-102 DST
The following information is from the 1996-CDR-USQ page H-6:
1. Provide epoxy coating in the pit.
2. Leak detection = conductivity probe located in encasement.
4. Provide electric flow meters on incoming and outgoing lines at each central pump pit. (Is this a "central" pump pit?)

SN-609 Transfer Line 3" dia length = 717'

1. Leak detection = conductivity probe located in encasement.

241-AP Valve Pit

Drains to AP-103 DST.
1. Page 17 of the revised W-314 states that the Special Protective Coating (SPC) "shall be repaired as necessary to facilitate future pit cleanup in the .....Pit."
2. Page H-9 of the 1996 CDR-USQ mentions the following:
   a) Provide epoxy coating in the 241-AP Valve Pit.
   b) Install electric valve position indicators.

SN-617 Transfer Line 3" dia length = 416'

1. Page 5 of the 1996 CDR mentions that SN-216 was to be replaced (per the old W-314). What is the current status?

241-AP-07A Pump Pit

Drains to AP-107 DST.
I found no reference to this pit.

5. Are there any clean-out boxes (COBs) along the transfer route? The 1994 TFCP (as I recall) said that most of these will be disconnected and removed from service. If any were to remain, much work was needed. If any COBs remain along this route, what is their current status?

6. Will a flush of the lines occur prior to actual transfer? Would a flush be part of a test of the lines/vaults, etc.? Will this be a warm water flush?

7. Which structures/pipelines, along this transfer route have received integrity assessments? What is the schedule to perform integrity assessments for the structures/pipelines?

8. Page 5 of the 1994 Tank System Integrity Assessments Program Plan mentioned five evaluations/studies relating to secondary containment requirements. Please provide copies of these papers at your earliest convenience.